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NOTICE OF ALLOWANCE AND FEE(S) DUE

23373 7590 05/17/2010 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON DC 20037

| EXAMINER | | | | | | |
|------------------|--------------|--|--|--|--|--|
| WILLS, MONIQUE M | | | | | | |
| ART UNIT | PAPER NUMBER | | | | | |
| 1795 | | | | | | |

DATE MAILED: 05/17/2010

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/599,393 | 09/27/2006 | Jun-ichi Yamaki | Q97226 | 8040 |

TITLE OF INVENTION: POSITIVE ELECTRODE ACTIVE MATERIAL FOR NON-AQUEOUS ELECTROLYTE SECONDARY CELL

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 08/17/2010 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includir ed below or directed oth | of transmitting the 1330 ig the Patent, advance or ierwise in Block 1, by (a | rders and notification of r a) specifying a new corres | naintenance fees wi pondence address; | II be ma and/or (b | iled to the current o) indicating a sepa | correspondence address as rate "FEE ADDRESS" for |
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| | ENCE ADDRESS (Note: Use Bi | ock 1 for any change of address) | Note Feet paps | e: A certificate of n s) Transmittal. This ers. Each additional its own certificate of | nailing c certifica paper, so | an only be used for the cannot be used for uch as an assignment | r domestic mailings of the or any other accompanying nt or formal drawing, must |
| SUGHRUE M 2100 PENNSYI SUITE 800 WASHINGTON | VANIA AVENUE | | I bo | Certi | ficate of | Mailing or Transi | mission deposited with the United t class mail in an envelope above, or being facsimile ate indicated below. |
| WASHINGTON | , DC 20037 | | | | | | (Depositor's name) |
| | | | _ | | | | (Signature) |
| | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTORN | EY DOCKET NO. | CONFIRMATION NO. |
| 10/599,393 | 09/27/2006 | | Jun-ichi Yamaki | | | Q97226 | 8040 |
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| | | | PUBLICATION FEE DUE | | FEE | | |
| nonprovisional | NO | \$1510 | \$300 | \$0 | | \$1810 | 08/17/2010 |
| EXAM | IINER | ART UNIT | CLASS-SUBCLASS | | | | |
| WILLS, MO | • | 1795 | 429-22I000 2. For printing on the p | | | | |
| 1. Change of correspondence address or indication of "Fee Address" (27 CFR 1.563). Change of correspondence address for Change of Correspondence Address from PIOSB/122) altached. The Address from PIOSB/122) altached. The Address' indication for "Fee Address" indication for PIOSB/124 altached. The Address' indication for "Fee Address" indication for PIOSB/147 altached. Use of a Customer Number is required. Namber is required. | | | (1) the names of up to 3 registered patent attorneys cor agents OR, alternatively. (2) the name of a single firm (having as a member a registered attorney or agen) and the names of up to or 2 registered patent attorneys or agents. If no name is listed, no name will be printed. | | | | |
| PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI | less an assignee is ident h in 37 CFR 3.11. Comp GNEE | | data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY | atent. If an assigner assignment. and STATE OR CO | OUNTRY | Y) | ocument has been filed for |
| 4a. The following fee(s) Issue Fee Publication Fee (N | vo small entity discount p | | b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo | d. Form PTO-2038 | is attach | ed. | |
| - 11 | s SMALL ENTITY state | is. See 37 CFR 1.27. | b. Applicant is no lon | | | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | iired) will not be accepted tes Patent and Trademark | d from anyone other than t Office. | he applicant; a regist | tered atto | orney or agent; or th | e assignee or other party in |
| Authorized Signature | | | | Date | | | |
| Typed or printed nam | e | | | Registration No | o | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223 | nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450. | FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the ONOT SEND FEES OR (| on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO | etain a benefit by the imated to take 12 m idual case. Any con r, U.S. Patent and T O THIS ADDRESS. | e public inutes to nments o rademar SEND T | which is to file (and complete, includin on the amount of tir k Office, U.S. Depa TO: Commissioner i | by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. for Patents, P.O. Box 1450, |

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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| 23373 75 | 90 05/17/2010 | EXAMINER | | | |
| SUGHRUE MIO | N, PLLC | WILLS, MONIQUE M | | | |
| | ANIA AVENUE, N.W | ART UNIT | PAPER NUMBER | | |
| SUITE 800 WASHINGTON, DC 20037 | | | 1795 DATE MAII ED: 05/17/201 | 0 | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/599 393 YAMAKI ET AL. Notice of Allowability Examiner Art Unit Monique M. Wills 1795 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 3/8/2010. The allowed claim(s) is/are 4 and 5. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) X All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. \(\overline{\text{Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 9/27/06 8. X Examiner's Statement of Reasons for Allowance 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

/Monique M Wills/

Examiner, Art Unit 1795

9. ☐ Other .

/Jennifer K. Michener/

Supervisory Patent Examiner, Art Unit 1795

Art Unit: 1795

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: the instant claims are allowable over the prior art of record, because the prior art is silent to a non-aqueous electrolyte sodium secondary battery comprising a positive electrode active material, having a hexagonal crystal structure, and exhibiting a value of 2 or less obtained by dividing the XRD peak intensity corresponding to an interplanar spacing of 2.20A by the XRD peak intensity corresponding to an interplanar spacing of 5.36, and charge carries are sodium ions.

The prior art, such as Takeda et al. Materials Research bulletin, Vol. 29, teaches a positive electrode material containing sodium and iron. However, the value obtained by dividing the XRD peak intensity corresponds to an interplanar spacing of 2.20 A (namely, (003)) by the XRD peak intensity corresponding to an interplanar spacing of 5.36A (namely, (104) = (014) is 2.3, greater than the condition (2) required by the instant claims. Therefore, the instant claims are patentably distinct from Takeda.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1795

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Monique Wills whose telephone number is (571) 272-

1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00

pm.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's

supervisor, Jennifer Michener, may be reached at 571-272-1424. The fax phone

number for the organization where this application or proceeding is assigned is 703- $\,$

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-

direct.uspto.gov.Should you have questions on access to the Private PAIR system,

contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Monique M Wills/

Examiner, Art Unit 1795

/Jennifer K. Michener/

Supervisory Patent Examiner, Art Unit 1795